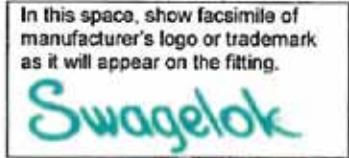


STATUTORY DECLARATION Registration of Fittings



I, Joel Feldman, Vice President of Engineering of Swagelok Company

located at 29500 Solon Road, Solon, Ohio 44139 USA

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (check one)

- comply with the requirements of ASME B31.1 and ASME B31.3 which specifies the dimensions, materials of construction, pressure/temperature ratings and identification marking of the fittings, or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with...

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, BSI as being suitable for the manufacture of these fittings to the stated standard.

Category C Type Fittings (brief description of fittings)

In support of this application, the following information, calculations and/or test data are attached: ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalog Information and other Support Documents

DECLARED before me at Solon in the State of Ohio this 07th day of December, 2018

(print) Jamie L Ristau (a Commissioner of Oaths or Notary Public) My Commission Expires: 03/06/2019 (sign) Jamie L Ristau (a Commissioner of Oaths or Notary Public) Joel C. Feldman (signature of applicant)

For ABSA Office Use Only: NOTES: See the attached sheets (Attachments A & B) for scope of registration

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category C Registration Number: OC21018-52

Date Registered: FEB 25 2019 Expiry Date: January 22, 2029



Attachment B: Scope of CRN Registration for Swagelok Bellows-Sealed, B Series Valves (Category C)

FEB 25 2019

Product Scope

This document represents the scope of Bellows-Sealed, B Series Valves covered by this submission for CRN approval. These Bellows-Sealed, B Series Valves have been evaluated in accordance with ASME B31.1 and B31.3 for unlisted components.

0C21018-52

Table 1 – Summary Table

Product Series	Main Pressure Bearing Component	Main Pressure Bearing Material	Port Connections and Sizes	Maximum Allowable Working Pressure		Design Code of Construction
				@100°F	At Max. Temp.	
4B, 6B, 8B (*see below)	Body, Bonnet, Bonnet nut	316 SS (ASTM A479)	Tube Fitting 1/4", 3/8", 1/2", 6mm, 10mm, 12mm Tube Socket & Butt Weld 1/4", 3/8", 1/2", 3/4" Male VCR 1/4", 1/2" Butt Welded Female VCR 1/4", 1/2"	1000 psig	BG ¹ :400 psig@600°F BW ² :200 psig@900°F BK ³ :830 psig@200°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
		Alloy 400 N04400 (ASTM B164)		700 psig	BG ¹ :375 psig@500°F BW ² :375 psig@500°F BK ³ :610 psig@200°F	
		Brass C36000 (ASTM B16)	Tube Fitting 1/4", 3/8", 1/2", 6mm, 10mm, 12mm Tube Socket & Butt Weld 1/4", 3/8", 1/2", 3/4"	1000 psig	BG ¹ :150 psig@400°F BK ³ :710 psig@200°F	
4BK, 6BK, 8BK (1 Series Air Actuated)	Body, Bonnet, Bonnet nut	316 SS (ASTM A479)	Tube Fitting 1/4", 3/8", 1/2", 6mm, 10mm, 12mm Tube Socket & Butt Weld 1/4", 3/8", 1/2", 3/4" Male VCR 1/4", 1/2" Butt Welded Female VCR 1/4", 1/2"	Normally closed: 125 psig Normally open: 500 psig Double actuating: 700 psig	Max temp = 200°F, WP same as 100°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
		Alloy 400 N04400 (ASTM B164)			Normally closed: 125 psig@200°F Normally open: 500 psig@200°F Double actuating: 610 psig@200°F	
		Brass C36000 (ASTM B16)	Tube Fitting 1/4", 3/8", 1/2", 6mm, 10mm, 12mm Tube Socket & Butt Weld 1/4", 3/8", 1/2", 3/4"		Max temp = 200°F, WP same as 100°F	

* Mode of operation: hand operated and 3 series air actuated (all materials), 5 series air actuated (316 and Alloy 400 only)

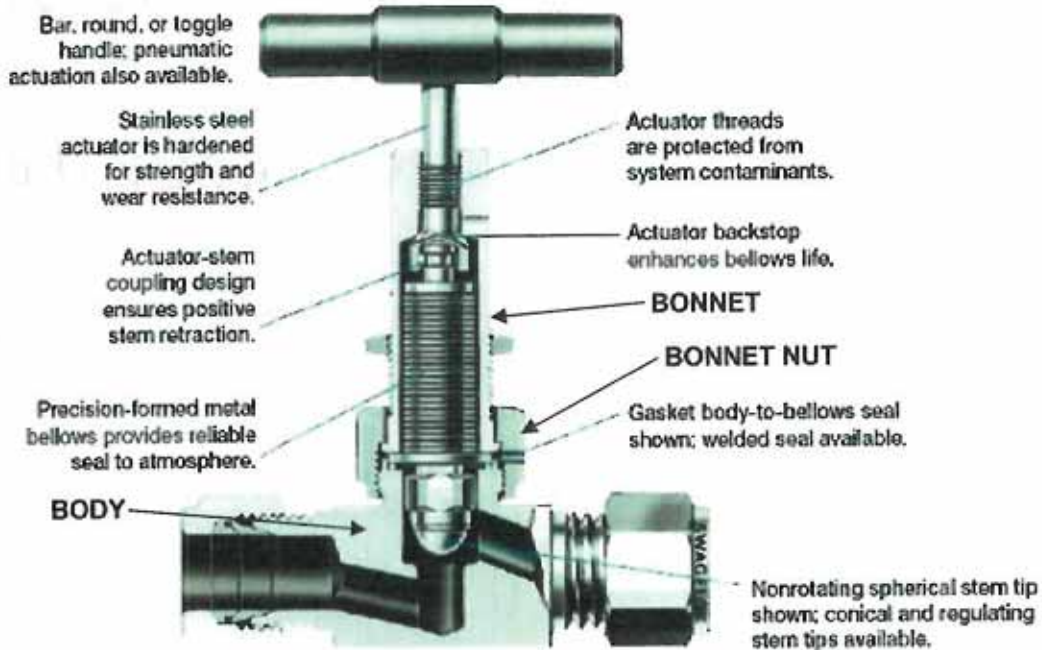
¹ BG Series has a gasket body-to-bellows seal

² BW Series has a welded body-to-bellows seal

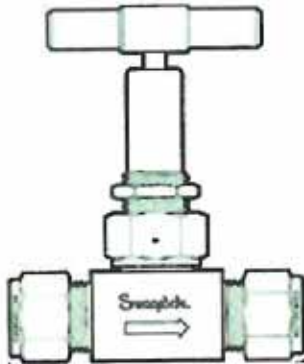
³ BK Series has a PCTFE (soft) stem tip and a gasket bonnet seal

Product Description

All B Series Valves have the same features as shown below.



Configurations



Tube Socket Weld and
Tube Butt Weld Ends

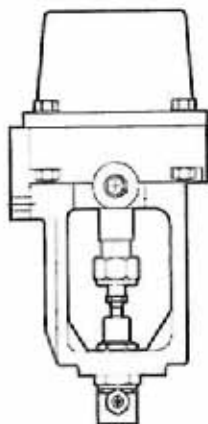


Butt Welded Female
VCR Fitting Ends

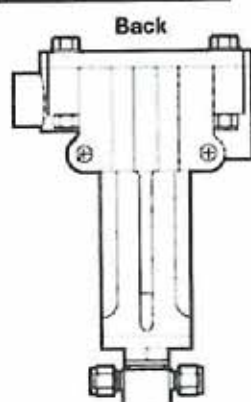


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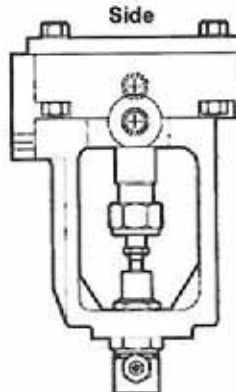
5 Series Actuator



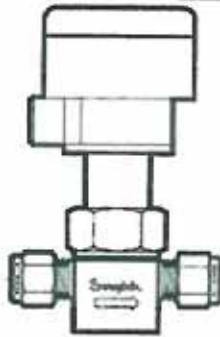
Normally Closed



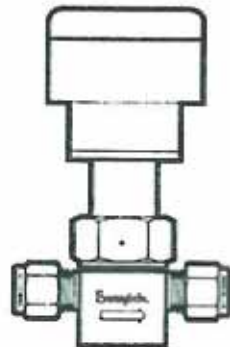
Normally Open and Double Acting



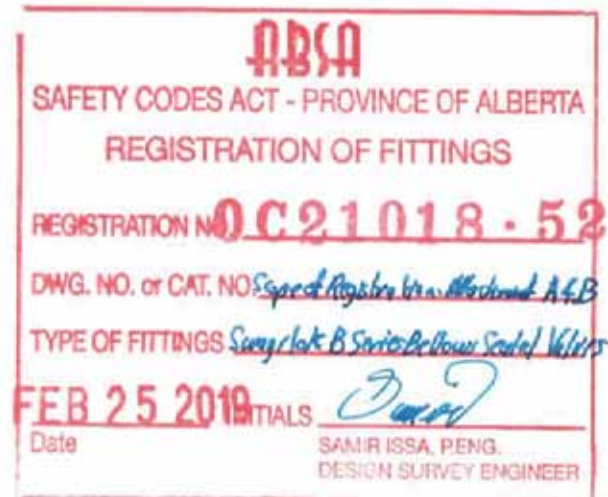
1 Series Actuator



**Normally Closed
and Double Acting**



Normally Open



Product Options:

The B Series valve stem tips and gaskets listed below affect pressure and/or temperature ratings shown in the above Summary Table, but in all cases the ratings are less than those shown below:

Stem Tips

- Alloy K-500 (regulating)
- Alloy K-500 (conical)
- Chrome-plated 316 SS (regulating)
- Cobalt-based alloy (spherical)
- PCTFE (conical)

Gaskets

- PTFE-coated 316 SS
- Silver-plated 316 SS
- PTFE-coated alloy 400
- Silver-plated alloy 400

Additional options and non-pressure boundary alterations that do not affect pressure-temperature ratings may be made available within the scope of this registration. Examples of these would include, but not be limited to, handle options, indicator switches, actuators, etc.

Quality System

The Swagelok Company quality system complies with the requirements of ISO 9001:2015. The Swagelok Company maintains British Standards Institution Certificate of Registration Number FM 01729, which applies to all locations listed on the Certificate.

References

The product catalog does not represent the full scope of the registration but rather details some of the most common options.

- Bellows-Sealed Valves, B Series Catalog – MS-01-22, R13

Attachment A. Swagelok Manufacturing Locations

FEB 25 2019

This document lists the Swagelok locations where end item or component level manufacturing activities take place.

0C21018-52

Swagelok Company 29500 Solon Road Solon, Ohio 44139 USA	Swagelok Company (Falon 1) 348 Bishop Road Highland Heights, Ohio 44143 USA
Swagelok Company (Highland) 318 Bishop Road Highland Heights, Ohio 44143 USA	Swagelok Company (Falon 2) 358 Bishop Road Highland Heights, Ohio 44143 USA
Swagelok Company (OFC) 29495 F.A. Lennon Drive Solon, Ohio 44139 USA	Swagelok Company (HPF) 6050 Cochran Road Solon, Ohio 44139 USA
Swagelok Company (Atlantic) 26651 Curtiss Wright Parkway Willoughby Hills, Ohio 44092 USA	Swagelok Company (Snow Metal) 6060 Cochran Road Solon, Ohio 44139 USA
Swagelok Company (Micro) 26653 Curtiss Wright Parkway Willoughby Hills, Ohio 44092 USA	Swagelok Company (Alfred) 29500 Ambina Drive Solon, Ohio 44139
Swagelok Hose Services Company (SHSC) 29900 Solon Industrial Parkway Solon, Ohio 44139	Swagelok Company (Strongsville) 15400 Foltz Road Strongsville, Ohio 44119
Swagelok (China) Fluid System Technologies Ltd. Changshu Export Process Zone Changshu Economic Development Zone Changshu, Jiangshu 215513 China	Swagelok Limited Ballafletcher Road Tromode IM4 4RA Isle of Man